

What is claimed is:

1. A fan controller for controlling the rotation of a rotor having a fan blade, rotation of the rotor being controlled by rotor circuitry, the fan controller comprising:

an input for receiving an input voltage, the rotor circuitry being energizable by the input voltage;

capacitive storage in electrical communication with both the rotor circuitry and the input, the capacitive storage capable of charging by receiving current from the input; and

a current limiting element coupled between the input and the capacitive storage, the current limiting element at least in part controlling current flow from the input to the capacitive storage.

15 2. The fan controller as defined by claim 1 wherein the current limiting element is configured to control current flow from the input to the capacitive storage at least in part as a function of the amount of current required to be drawn by the rotor circuitry.

20 3. The fan controller as defined by claim 1 wherein the current limiting element is a PTC.

4. The fan controller as defined by claim 1 wherein the current limiting element is an adjustable linear voltage/current regulator.

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5. The fan controller as defined by claim 1 wherein the capacitive storage includes a plurality of series capacitors.

6. The fan controller as defined by claim 1 wherein the current limiting element is configured to ensure that the rotor circuitry has sufficient current to rotate the rotor when the storage element is storing power.

5 7. A fan controller for controlling the rotation of a rotor having a fan blade, rotation of the rotor being controlled by rotor circuitry, the fan controller comprising:

an input for receiving an input voltage, the rotor circuitry being energizable by the input voltage;

10 capacitive means for storing charge, the capacitive means being in electrical communication with both the rotor circuitry and the input, the capacitive means capable of storing charge by receiving current from the input; and

15 control means for at least in part controlling current flow from the input to the capacitive storage, the control means being coupled between the input and the capacitive means.

20 8. The fan controller as defined by claim 7 wherein the control means includes means for controlling current flow from the input to the capacitive storage at least in part as a function of the amount of current required to be drawn by the rotor circuitry.

9. The fan controller as defined by claim 7 wherein the control means is a PTC.

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10. The fan controller as defined by claim 7 wherein the control means is an adjustable linear voltage/current regulator.

11. The fan controller as defined by claim 7 wherein the capacitive means includes a plurality of series capacitors.

12. The fan controller as defined by claim 7 wherein the control means 5 includes means for ensuring that the rotor circuitry has sufficient current to rotate the rotor when the storage element is storing power.

13. A circuit for controlling the rotation of a rotor, the rotor having associated rotor control circuitry for rotating the rotor, the circuit comprising:

10 an input,
the rotor control circuitry capable of rotating the rotor in response to receipt of current drawn from the input;
a storage element capable of storing charge by drawing current from the input;

15 a current limiting element coupled between the input and storage element, the current limiting element being configured to control the current drawn by the storage element at least in part as a function of the current required to be drawn by the rotor control circuitry.

20 14. The circuit as defined by claim 13 wherein the current limiting element is configured to ensure that the rotor circuitry receives enough current to rotate the rotor when the storage element is storing power.

25 15. The circuit as defined by claim 13 wherein the current limiting element is configured to ensure that the motor begins operating substantially immediately after start-up.

16. The circuit as defined by claim 15 wherein the current limiting element is configured to ensure that the motor begins operating within one second after start-up.

5 17. The circuit as defined by claim 13 wherein the current limiting element is one of a PTC and a constant current device.

18. The circuit as defined by claim 13 wherein the storage element includes a plurality of series capacitors.

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19. The circuit as defined by claim 13 wherein the storage element is in electrical communication with both the input and the rotor control circuitry.

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20. The circuit as defined by claim 13 wherein the current limiting element is not coupled between the input and the rotor control circuitry.

21. The circuit as defined by claim 13 wherein the current limiting element isolates the rotor control circuitry from the storage element.

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